LISTING OF CLAIMS

1. (Previously Presented) A method of artifact rejection comprising:

(a) transmitting a stimulus;

(b) receiving a response to the stimulus;

(c) splitting the response into a noise component and a signal component;

(d) calculating a noise power from the noise component;

(e) based on the calculated noise power, storing the noise component in one of a plurality of noise buffers and the signal component in a corresponding one of a plurality of signal buffers;

(f) repeating steps (a) through (e);

(g) selecting a combination of the plurality of noise buffers having a lowest noise power; and

(h) calculating a signal from a combination of signal buffers corresponding to the selected combination of noise buffers.

2. (Original) The method of claim 1 further comprising counting the number of noise and signal components stored in each of the plurality of noise buffers and signal buffers, respectively.

3. (Previously Presented) The method of claim 1 further comprising:

calculating a signal to noise ratio from the calculated signal and the lowest noise power; and

comparing the calculated signal to noise ratio to a predetermined value.

4. (Original) The method of claim 3 further comprising performing a function if the calculated signal to noise ratio is greater than the predetermined value.

5. (Original) The method of claim 3 further comprising performing a function if the calculated signal to noise ratio is less than the predetermined value.

6. (Previously Presented) The method of claim 1 wherein each stimulus comprises a plurality of points.

7. (Original) The method of claim 6 wherein each stimulus comprises 1024 points.

8. (Previously Presented) The method of claim 1 wherein each of the plurality of noise and signal buffers comprise eight buffers.

9. (Original) The method of claim 1 wherein the method is employed in one of a DPOAE test, a TEOAE test, a BAER test, an ultrasound operation, an MRI operation, a RADAR operation, a GPS operation, an EEG operation, an EKG operation, or a communications operation.

10. (Previously Presented) The method of claim 1 wherein splitting the response into a noise component and a signal component comprises taking the discrete Fourier transform of the response.

11. (Previously Presented) The method of claim 10 wherein seven different frequencies are employed.

12. (Canceled)

13. (Previously Presented) The method of claim 1 further comprising discarding the response if the noise power of the noise component does not fit within an acceptable range of the plurality of noise buffers.

14. (Previously Presented) A method of artifact rejection comprising:

(a) transmitting a stimulus;

(b) receiving a response to the stimulus;

(c) calculating a noise power from the response;

(d) based on the calculated noise power, storing the response in one of a plurality of buffers;

(e) repeating steps (a) through (d);

(f) selecting a combination of the plurality of buffers having a lowest noise power; and

(g) calculating a signal based on the selected combination of buffers.

15. (Previously Presented) The method of claim 14 further comprising counting the number of responses stored in each of the plurality of buffers.

16. (Previously Presented) The method of claim 14 further comprising:

calculating a signal to noise ratio from the calculated signal and the lowest noise power; and

comparing the calculated signal to noise ratio to a predetermined value.

17. (Original) The method of claim 16 further comprising performing a function if the calculated signal to noise ratio is greater than the predetermined value.

18. (Original) The method of claim 16 further comprising performing a function if the calculated signal to noise ratio is less than the predetermined value.

19. (Previously Presented) The method of claim 14 further comprising discarding the response if its calculated noise power does not fall within one of a plurality of acceptable noise power ranges corresponding to respective ones of the plurality of buffers.

20. (Canceled).

21. (Previously Presented) A method of artifact rejection comprising:

(a) transmitting a stimulus;

(b) receiving a response to the stimulus;

(c) calculating a noise power from the response;

(d) based on the calculated noise power, storing the response in one of a plurality of buffers;

(e) repeating steps (a) through (d); and

(f) selecting a combination of the plurality of buffers having a lowest noise power.

22. (Previously Presented) The method of claim 21 further comprising calculating a signal based on the selected combination of buffers.

23. (Previously Presented) The method of claim 21 further comprising discarding the response if its calculated noise power does not fall within one of a plurality of acceptable noise power ranges corresponding to respective ones of the plurality of buffers.

24. (Previously Presented) The method of claim 21 further comprising analyzing the responses based on the selected combination of buffers.